

REMARKS

The remarks are presented in the same order as the numbered paragraphs of the Office Action. In paragraph 2 of the Office Action, the disclosure is objected to as follows. "...in Example 8, line 30, page 8, Applicants indicate that 6-hydroxypyrimidine has reacted. Should this not be 6-methoxypyrimidine? ..."

While acknowledging the Examiner's assistance in this regard, Applicants have not found the cited section in their application. Applicants request a telephone interview with the Examiner to ascertain the basis for the objection and make the appropriate correction.

Responsive to the statement in paragraph 3 of the Office Action, Applicants submit herewith a certified copy of the priority papers to overcome the obviousness rejections stated in paragraphs 5 and 6 of the Office Action.

In paragraph 4 of the Office Action, the claims were subjected to anticipation rejection. Specifically,

"Claims 10, 11, and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowen (WO 95/29166 A1)."

The rejection is based on the reasoning that the claims are inherently taught in light of reasonable inferences drawn from Bowen's disclosure of the reaction of 4,6-dihydroxypyrimidine with phosgene in the presence of a base.

Applicants traverse the rejection because the record lacks factual support for the postulate that Bowen's process for converting 4, 6-dihydroxypyrimidine into 4,6-dichloropyrimidine using phosgene and a suitable base is inherently substantially the same as the claimed process of reacting 4-chloro-6-hydroxypyrimidine with an acid chloride. The skilled artisan without the benefit of Applicants' disclosure would not have inferred the reaction of the alleged intermediates with acid chloride to produce 4,6-dichloropyrimidine.

Hence, there is presented an issue of whether there is factual or technical basis of record in support of the rejection based on inherency.

It is well established in the law that the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert 28 USPQ2d 1955 (Fed.Cir. 1993). "To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill", In re Robertson 49 USPQ2d 1949 (Fed. Cir. 1999).

In this case, the Examiner has not provided extrinsic evidence in support of his inherency argument. Instead, the Examiner has postulated that:

"The reaction of phosgene or thionyl chloride with a hydroxyl compound requires one molecule of reagent for each hydroxyl group. With phosgene, one molecule of CO<sub>2</sub> and one molecule of HCl must be produced as by-products in the synthesis of a chlorine derivative. Only one hydroxyl group of 4,6-dihydroxypyrimidine may be transformed into a chlorine atom by the phosgene reagent. The reaction taught by Bowen (WO 95/29166 A1), thus may be pictured below. Two molecules of phosgene are required in the process of Bowen (WO 95/29166 A1). Applicants' 4-chloro-6-hydroxypyrimidine starting material is a necessary intermediate in the process taught in the prior art and thus is inherently present in the reaction mixture of Bowen (WO 95/29166 A1). Applicants' 4-chloro-6-hydroxypyrimidine starting material is generated *in situ* in the reference. Thus, claim 13, which optionally permits a reaction mixture containing the starting material, is inherently anticipated. Since both the starting material and product of Bowen (WO 95/29166 A1) are symmetrical, it is a random choice as to which hydroxyl group reacts first."

Assuming arguendo that the Examiner's postulate is correct, there is presented the issue whether the postulated process of reacting the intermediate in the presence of the starting 4,6-dihydroxypyrimidine and a base is substantially the same as the claimed process. It is not.

Applicants hasten to note that the Examiner cannot pick and choose from the postulated process certain aspects that support his case.

Applicants respectfully submit that while the Examiner has done yeoman's job of analysis in dissecting and recombining components of the reference in an attempt to create the claimed process, such analysis is retrospective and impermissibly creates hindsight anticipation, with the guidance of Applicants' disclosure.

A fair reading of Bowen -without the benefit of Applicants' disclosure- would not have revealed the reaction of intermediates with phosgene.

At the risk of being rhetorical, one would have to ask why Bowen would employ a process involving preparation of an intermediate 4-chloro, 6-hydroxypyrimidine before reacting it with phosgene, in an instance where the 4-chloro, 6-hydroxypyrimidine is already available.

Assuming arguendo that such a reaction is discerned, there is still an issue of whether such a reaction in the context of Bowen would be substantially the same as the claimed process.

Applicants submit that beyond the Examiner's postulates as to the existence of intermediates, and further postulate as to the reaction of the intermediates with acid chlorides, nothing herein shows that the claim-recited 4,6-dichloropyrimidine is necessarily obtained. It is well settled in the law that where one skilled in the art would not have recognized the desired result of the claimed process or adjusted concentration of the process material to achieve that result, the manipulative steps of the process do not inherently result, *Ex parte Viscardi* 136 USPQ382 (Bd. Pat. App. 1962).

Applicants now turn to the citation of *In re Napier* 34 UAPQ2 1782 in support of the rejection. While Applicants agree with the Examiner that knowledge of the skilled artisan of an inherent property or feature is not required for the doctrine of inherency, the law still requires that what is argued to be inherent should necessarily result in the claimed invention. In this case, however, the Examiner cannot argue that the reaction of (1) 4,6-dihydroxypyrimidine and (2) its alleged intermediate and

(3) in the presence of a base is inherently the same as the claimed process of reacting 4-chloro, 6-hydroxypyrimidine with an acid chloride. Since the case of inherency has not been made, In re Napier is not controlling in this case.

Claims 10, 11, 13, 14 and 16-18 are rejected under 35 USC 103(a) as being unpatentable over Garner (Heterocyclic Communications) alone or in view of Roberts (Basic Principles of Organic Chemistry). Further Claims 10, 11, 13, 14 and 16-18 are rejected under 35 USC 103(a) over Garner (Heterocyclic Communications). Applicants traverse the rejection because the references lack basis for modification of the prior art to the claims with a reasonable expectation of success. Roberts is cited for the proposition that it teaches reaction of 4-chloro-2-methyl-6-hydroxy-pyrimidine with  $\text{POCl}_3$ .

In ascertaining the difference between the prior art and the claims, the Examiner states that:

"The difference between the claimed and taught processes is the extra methyl group on position 2 of the pyrimidine ring."

In an attempt to overcome the difference, the Examiner cites Garner for the proposition that:

"...[I]t is well to appreciate, however that a real understanding of organic chemistry involves much more than a knowledge of the separate behaviors of classes of compounds with different functional groups. Indeed, it is frequently useful and instructive to consider types of reactions rather than types of compounds"....

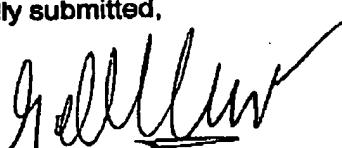
Without disputing the merits of the Examiner's arguments, nothing herein provides a motivation for removing the methyl group. The mere fact that this can be done, does not render a claim obvious absent some basis in the references for doing so, In re Mills, 16USPQ2d 1430 (Fed Cir. 1990). The mere fact that the proposed modification would have been well within the ordinary skill of the art at the time the invention was made does not render the claimed invention obvious, in the absence of some objective evidence to modify the references, Ex parte Levingood 28 USPQ2d 1300(Bd. Pat. App. & Inter. 1993).

Net: Applicants pray for the anticipation rejection to be withdrawn because it is based on retrospective analysis in light of the claimed invention. Applicants further pray for the withdrawal of the obviousness rejection, because the cited references do not provide a basis for modifying the prior art to the claims.

In view of the foregoing, Applicants submit that the Examiner is justified in allowing all the claims in the application. In the alternative, Applicants hereby request an Examiner's Interview to advance the prosecution of this case.

Respectfully submitted,

By \_\_\_\_\_

  
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